UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

July 7, 1993

Francisco LaGreca
U.S. Department of the Navy
Northern Division
10 Industrial Highway
Code 1823 - Mail Stop 82
Lester, PA 19113-2090

RE: EPA Comments on Draft Focused Feasibility Study, Site 01 - McAllister Point Landfill, NETC, Newport, RI.

Dear Mr. LaGreca:

Attached you will find EPA's comments on the above-referenced draft submittal. You will note that these attached comments have been divided into general and specific comments for your review and incorporation into the Final Draft version of this submittal. As previously indicated, EPA and RI DEM will need to receive and review the Final Draft approximately one week prior to the start of the public comment period.

On a related note, I believe that it is critical to ensure that the State of Rhode Island's Coastal Resources Management Council is able to review and comment on the Feasibility Study documents and Proposed Plan associated with the McAllister Point landfill.

I will be able to complete the review of the potential Applicable Relevant and Appropriate Requirements (ARARs) by early next week. The review is taking additional time partially due to the fact that the list of ARARs was incomplete or undetermined. The list of potential ARARs should be identified through various regulatory agencies or through recently signed Records of Decision (RODs). If the Navy has developed a revised version of this section, please send this to me for review.

If there any questions or comments, please feel free to call me at 617/573-9614.

Sincerely,

Andrew F. Miniuks, Remedial Project Manager
Federal Facilities Superfund Section

Attachments

cc: Paul Kulpa, RI DEM
Greg Fine, RI DEM

Attachment

General Comments

Scheduling Concerns

1. If the thirty-day (30) public comment period on the Proposed Plan starts July 21st, then the Navy should ensure that the Proposed Plan is received by the general public, at a minimum, 5-7 days prior to the start of the comment period. The Public Notice and Press Release should be sent to the paper approximately 10 days prior to the start of the public comment period.

2. Describe the status of the Administrative Record for this Source Control action. Include in this description the proposed index of files to be included in the Administrative Record and a date on which the files will be available for review.

Interim vs Final Source Control Actions

3. The proposed RCRA Subtitle C multilayer landfill cap is considered a "final" Source Control action. Therefore, all references to an "Interim" Source Control action should be revised to "Final" Source Control actions. In addition, this "Focused Feasibility Study" should be referred to as a "Feasibility Study".

First Operable Unit Remedy

4. Revise the description of the Preferred Alternative within the Feasibility Study to include the collection and treatment of the landfill gases. EPA routinely requires the collection and treatment of landfill gases in order to protect human health and the environment and to minimize potential gas bubbling and cap liner disruption. In addition, the historical drilling experiences of the Navy's contractors at this landfill suggest that high levels of landfill gases are expected.

5. Revise the description of the Surface Control Requirements to include a reduction in the grade of the seaward-facing landfill slope without moving landfill material into the adjacent bay. The purpose of this action would be to help promote the dissipation of wave energy.

6. The description of the preferred alternative Source Control operable unit should include the RCRA Subtitle C multilayer cap with landfill gas venting combined with a series of additional studies to be completed prior to initiating construction of the landfill cap.

These additional studies should be designed to determine:
- if additional measures must be taken to reduce the amount of groundwater in contact with the contaminated materials of the landfill. These additional measures could include, but are not limited to, the construction of an upgradient slurry wall and/or downgradient collection system.
- whether the "hot spots" within the landfill materials, if present, will be addressed by groundwater/separate phase extraction, in-situ treatment, removal or be addressed by the construction of the landfill cap; and
- the amount and location of near-shore sediments to be excavated and consolidated under the landfill cap.

7. The Feasibility Study for this Source Control operable unit should also reference the potential consolidation of contaminated near-shore sediments beneath the landfill cap prior to initiating construction. By referencing this potential action, the potential for an Explanation of Significant Differences (ESD) or a ROD amendment for sediment consolidation is reduced.

Landfill Gas Treatment

8. A Feasibility Study defining the treatment of the landfill gases may be performed as part of the Second Operable Unit.

Second Operable Unit Strategy

9. The Management of Migration operable unit, which would be the second and final operable unit for this area, would include the following, as necessary:
- the cleanup standards and remedial alternative(s) for the contaminated groundwater;
- determine whether the vented landfill gases require treatment to protect human health and/or the environment; and,
- the cleanup standards and remedial alternative(s) for the contaminated sediments.

Characterizing Hot Spots within McAllister Point Landfill

In order to determine the need to further characterize potential "hot-spots" within landfills, EPA references the following criteria:

A. Does evidence exist to indicate the presence and approximate location of waste(s)?
B. Is the "hot-spot" considered principle threat waste?
C. Is the waste in a discrete, accessible part of the landfill?

D. Is the "hot-spot" large enough that its remediation will significantly reduce the threat posed by the overall site, but small enough that it is reasonable to consider removal (e.g., 100,000 cubic yards or less)?

E. Is the combination of the waste's physical and chemical characteristics and volume such that the integrity of the containment system will be threatened if the waste is left in place?

10. The Feasibility Study for this Source Control operable unit should also include the criteria to be used by the Navy for the removal of highly contaminated materials and/or extraction of separate phase contamination.

    The Navy has argued that there are no "hot-spots" of contamination and appears to want to classify hot-spots based on a visual classification (i.e., ash disposal area and visually contaminated soils). However, if risk-based clean-up concentrations were used to define "hot-spots", then it is likely that the number of "hot-spots" would be more numerous.

    In the Navy's risk evaluation, it was determined that at a 10^{-6} risk, a soil clean-up level for benzo (a) pyrene [B(a)P], the most toxic of the polycyclic aromatic hydrocarbons (PAHs), would be 85 μg/kg. If a clean-up goal based on a 10^{-4} risk was referenced, then the associated clean-up goal would be 8.5 mg/kg for an individual carcinogenic PAH (cPAH).

11. The Navy should prepare figures showing those locations exceeding a $1x10^{-6}$ risk, $1x10^{-5}$ risk and a $1x10^{-4}$ risk for cPAHs, then superimpose these locations upon the landfill cap drawing identified in the report (Figure 4-2 of the report). This exercise may help determine the need to further address these locations.

Specific Comments

Executive Summary

12. Figure ES-1: Revise this figure to improve the quality of this map. Presently it is difficult to discern the wells, borings and surface soil sampling locations.

13. Table ES-6: Correct the typographical error in Alternatives 3 and 4 from "barrer" to "barrier".

Section 1.0 Introduction

Section 1.5.1 Initial Assessment and Confirmation Studies

14. Revise the Feasibility Study to include additional information on the sediment and mussel sampling effort described within this section. More specifically, revise this section to include the number of samples collected per media, the maximum and average analytical values and additional information on the "bay-wide" polychlorinated biphenyls (PCBs) contamination which is referenced in this section. Describe the source(s) of the information on which the claim of "bay-wide" PCB contamination is based.

Section 1.5.3.1 Soil Assessment - Base Neutral/Acid Extractables (BNAs)

15. The Navy should prepare figures showing those locations exceeding a $1x10^{-6}$ risk, $1x10^{-5}$ risk and a $1x10^{-4}$ risk for cPAHs, then superimpose these locations upon the landfill cap drawing identified in the report (Figure 4-2 of the report). This exercise may help determine the need to further address these locations. These locations may lie beneath the proposed RCRA Subtitle C multilayer cap, and therefore may not require additional efforts to reduce the level of risk.

Section 2.0 Identification of Potential Applicable or Relevant and Appropriate Requirements

16. Comments will be forwarded to the Navy under a separate cover. EPA's specific comments will consist of "marked up" tables, and will be transmitted to the Navy at the July 14th meeting in Newport, RI.

As a general comment, the ARARs table repeatedly references "To Be Determined" under the Status column. Has the status of these undetermined ARARs been resolved? If so, please submit these immediately for review and comment. The table, as submitted, is not appropriate for EPA review.

This table should be revised to include a column labeled "Actions Taken to Meet ARARs". This revision should include the actions to be taken to meet each of the ARARs listed in Section 2 of the Feasibility Study.

Section 3.0 Identification and Screening of Interim Remedial Actions

Section 3.2.2 Risk-Based Considerations

16. Page 3-7 - If soil "hot-spot" remediation is required, the Navy should consider using SW-846, Third Edition, Method 8310 for determining the concentration of Polynuclear Aromatic Hydrocarbons (PAHs). This method is focused on measuring the concentrations of PAHs and the detection limits are typically lower than those obtained by the EPA SOW for Organic Compounds.

Section 3.3 Interim General Response Actions

17. Page 3-9 - EPA believes that there are "hot-spots" within McAllister Point landfill. A review of Figure 3-3 shows sample locations SS-2, SS-6, SS-8, SS-9 and SS-11 exceeding a risk level of 10^{-4} (8.5 mg/kg) for cPAHs; these areas could be considered "hot-spots". The Navy should determine the need to remediate these individual areas and describe the risk posed by these locations and any other similar areas before and after construction of the proposed RCRA Subtitle C multilayer cap.

Figures

18. Revise these figures to more clearly present the extent of contamination detected within the soils. If possible, the Navy should graphically present the extent of contamination through a series of contour lines which. In this fashion, the presence of "hot-spots" within the landfill will be more clearly identified and the relation to the extent of coverage provided by the RCRA Subtitle C multilayer cap.

Tables

19. The Navy should revise the tables which summarize the cancer risk-based and non-cancer risk-based cleanup levels to include the corresponding cleanup levels for $1x10^{-5}$ risk and a $1x10^{-4}$ risk for cPAHs and

Section 4.0 Development and Detailed Analysis of Interim Remedial Alternatives

Section 4.3.2 Evaluation of Alternative 2 - Overall Compliance with ARARS

20. The first sentence should include cPAHs and the select metals cited in Tables 3-2 and 3-3. This comment also applies to the review of Alternatives 3 and 4.

Section 4.4.2 Evaluation of Alternative 3 - Implementability

21. In the Summer 1990, EPA observed the Navy's drilling operations at McAllister Point Landfill. It was noted during the oversight that the drilling was required to cease because 100% of the lower explosive limit (LEL) was reached. Revise the Feasibility Study to include a landfill gas venting and collection system.

Section 4.4.2 Evaluation of Alternative 3 - Short-Term Effectiveness

22. Change the last sentence of this section from "met" to "meet".

Section 4-5 Alternative IV - RCRA Subtitle C Multilayer Cap with Surface and Institutional Controls

23. Change a word in the second sentence from "there to "the".

Section 4.6.2 Compliance with ARARs

24. Second ¶: Add to the first sentence "and contaminants exceeding risk-based concentrations."

Section 4.6.4 Reduction of Toxicity, Mobility and Volume through Treatment

Second ¶, 1st sentence: Based on the risk analysis outlined in Appendix A and as discussed in Chapter 3, areas having concentrations of cPAHs greater than 85 $\mu g/kg$ (based on B(a)P, which was calculated based on a 10^{-6} risk) could be considered a "hot-spot".

If it is agreed that a clean-up level for "hot-spots" based on a 10^{-4} risk level, or 8.5 mg/kg, there would be several locations which would exceed this concentration for cPAHs (e.g., SS-2, SS-6, SS-8, SS-9 and SS-11). Therefore, to state that hot-spots do not exist is a matter of definition (i.e., risk-based numbers vs. other criteria).

25. The Navy should revise the Feasibility Study to reflect the unresolved criteria to be used to determine the presence of "hot-spots" within the landfill materials. Once a consensus on this criteria has been obtained, the need for any remedial measures, beyond the construction of the RCRA Subtitle C multilayer cap, should be resolved.

Section 5.0 Conclusions and Recommendations

26. Revise this section of the Feasibility Study to include the collection and treatment of the landfill gases. EPA routinely requires the collection and treatment of landfill gases in order to protect human health and the environment and to minimize potential gas bubbling and cap liner disruption. In addition, the historical drilling experiences of the Navy's contractors at this landfill suggest that high levels of landfill gases are expected.